Docket 89769MGB
Customer No. 01333

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

Michel Moulin

FLAT BED PLATESETTER SYSTEM

Serial No. 09/913,780

Filed February 17, 2000

Group Art Unit: 2854

Examiner: Leo T. Hinze

I hereby certify that this correspondence is being deposited today with the United States Postal Service as first class mail in an envelope addressed to Commissioner For Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Gina Marie Schmitt

June 30, 2006
Date

Mail Stop APPEAL BRIEF-PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA. 22313-1450

Sir:

APPEAL BRIEF TRANSMITTAL

Enclosed herewith is Appellants' Appeal Brief for the above-identified application.

The Commissioner is hereby authorized to charge the Appeal Brief filing fee to Eastman Kodak Company Deposit Account 05-0225. A duplicate copy of this letter is enclosed.

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Respectfully submitted,

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Enclosures

If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.

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APPEAL BRIEF PURSUANT TO 37 C.F.R. 41.37 and 35 U.S.C. 134

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APPELLANT'S BRIEF ON APPEAL

Appellant hereby appeals to the Board of Patent Appeals and Interferences from the Examiner's Rejection of claims 1, 47, 82, 87-89, 91-95 and 97-112 which was contained in the Office Action mailed February 9, 2006.

A timely Notice of Appeal was filed May 8, 2006.

Real Party In Interest

This application has been assigned by the inventor(s) to Eastman Kodak Company, Rochester, New York, the assignee and real party in interest in this application.

Related Appeals And Interferences

No appeals or interferences are known which will directly affect or be directly affected by or have bearing on the Board's decision in the pending appeal.

Status Of The Claims

Appendix I provides a clean, double-spaced copy of the claims on appeal.

1. Claims 2-46 and 48-81 are cancelled.
2. Claims 85 and 86 are allowed.
3. Claims 1, 47, 82, 87-89, 91-95 and 97-112 stand rejected.
4. Claims 83, 84, 90 and 96 are objected to as dependent upon rejected claims but have been indicated as otherwise allowable.

Status Of Amendments

No amendments were filed subsequent to the Final Rejection.

Summary of Claimed Subject Matter

Appellant's invention is directed to a system for imaging printing plates in a flat-bed plate setter system. The invention provides an improvement over prior printing plate imaging systems by reducing or eliminating the inertia of massive moving printing plate support structures known in the prior art. Thus, a precise, continuous, and rapid mechanism is provided for transporting a printing plate beneath an imaging head.

To effect this improvement, the printing plate imaging system of the present invention includes a stationary support bed in which the printing plate to be imaged is positioned in direct contact. The printing plate is slid on the support bed beneath the imaging head. Thus, the mass of a support that moves with the printing plate is eliminated.

Grounds of Rejection to be Reviewed on Appeal

The following issues are presented for review by the Board of Patent Appeals and Interferences:

1. Are Claims 1, 47, 87-89 and 97-112 unpatentable under 35 U.S.C. 103(a) as being obvious over Landsman 4,764,815 in view of Bergling 4,015,702?
2. Is Claim 82 unpatentable under 35 U.S.C. 103(a) as being obvious over Landsman in view of Bergling and Rinke et al. 5,934,195?

Arguments

Claims 1, 47, 87-89 and 97-112 are patentable over Landsman in view of Bergling:

Landsman discloses a system for moving a printing plate that is supported on a moving platen. Landsman addresses the conflicting goals of higher resolution and faster throughputs by providing a complex double-platen system. A movable primary platen (30) carries the printing plate, and is mounted on a movable reference platen (32). Landsman proposes holding primary platen (30) stationary while advancing reference platen (32) during the time period of the cross-tract imaging scan, and then advancing the primary platen (30) to a stop (66) on the reference platen (32) once the scan segment is completed.

In contrast to Landsman, the invention defined in independent claims 1, 47, 87, 94 and 98 of the present application enables rapid and precise movement of the printing plate by reducing or eliminating the inertia of moving parts of the plate setter. That is, the printing plate slidingly engages a stationary support bed without an intervening platen that would otherwise introduce moving mass and inertia. Specifically, each of the independent claims 1, 47, 87, 94 and 98 requires direct contact between the printing plate and a stationary support bed.

The rejection deals with the failure of Landsman to disclose direct contact between the printing plate and a stationary support bed by relying on Bergling's teaching of conveying large metal plates to positions for further processing. The example given by Bergling is that of moving "very large plates for ship building" to welding locations by sliding the large metal plates along a stationary support structure.

There Is No Motivation Within the Prior Art Itself For Making a Change In the Teaching Of Landsman Because Landsman Teaches Away From the Claimed Invention:

Assuming that Landsman may be readily modifiable in the manner suggested by the Examiner, this would not make the modification obvious if there were no motivation to one skilled in the art to modify the subject matter of Landsman in light of the teachings of the secondary references. In the present situation, there is even less motivation for modification of Landsman because Landsman teaches away from the claimed invention. "[A] reference must have been considered in its entirety, for disclosures which taught away from the invention as well as disclosures which directed one skilled in the art towards the claimed subject matter." *Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.* 227 USPQ 657,666 (Fed. Cir., 1985).

Landsman addresses the conflict between the need for accuracy and the need for speed during the movement of the printing plate. Landsman teaches that accuracy is enhanced by increasing the mass of the moving components (col. 2, lines 4-6, Landsman). While Landsman also recognizes that reduced mass could increase printing speed, he emphasizes that it is important to maintain sufficient size and mass of the components to achieve better stability and immunity from vibration. Accordingly, Landsman adopts a system where the conventional platen that carries the printing plate is formed of two sections to reduce mechanical acceleration forces while at the same time retaining the substantial mass of a movable platen. It is clear that Landsman is teaching away from the elimination of the movable platen, but rather teaches that it should be retained and modified in order to increase speed while maintaining high platen mass. A person skilled in the art, after reading Landsman, would not consider going against his teachings to

eliminate the mass of the platen that, according to Landsman, is required to maintain resolution and position accuracy.

There Is No Motivation Within the Prior Art Itself For Making a Change In the Teaching Of Landsman Because Bergling Is In a Nonanalogous Field:

A person skilled in the art of optical scanning printing plates would not turn to the ship building art for suggestions for dealing with the conflicting goals of higher resolution and faster throughputs. Landsman relates to the field of high-resolution optical scanners for accurately imaging printing plates in a flat-bed plate setter system. The resolution suggested by Landsman is in the order of pixels having diameters of 0.001 inches and line width accuracy of 0.001 inches. In contrast, Bergling is directed to the conveyance of large metal plates of different sizes for welding to other plates during the construction of ships.

Whether a reference is "analogous" is a question of fact; two criteria are used in this determination: 1) whether the art is from the same field of endeavor, regardless of the problem addressed; and 2) if it is not in the same field, whether the reference still is reasonably pertinent to that particular problem in which the inventor is involved.

It is clear that Landsman's art of high resolution recording of images on films or printing plates for industries such as newspapers, publishing, and engineering is not the same field of endeavor as Bergling's conveyance of large sheet-metal plates for ship building. Nor is Bergling reasonably pertinent to the problem of reducing the inertia of the printing plate conveyance system to enhance printing throughput and accuracy. Since the problem addressed by Bergling (successively conveying different sizes of large metal plates) is different that that addressed by Landsman (increasing throughput while maintaining resolution), a person skilled in the art of exposing printing plates would have had no motivation to consider the teaching of Bergling. See *In re Clay 23 USPQ 2nd 1058 (CAFC 1992).*

The art to which the invention pertains must be considered in determining whether a person would be motivated to consider teaching from other fields of endeavor. In the present situation, the art of imaging offset printing plates is very mature, going back many decades. In a mature art, one of ordinary skill in the art

would not consider another field of art unless the problem (or such other field) itself suggested such consideration.

The Dependent Claims:

Claims 88, 89, 91-93, 95, 97, 99-112 depend from one of independent Claims 1, 47, 87,94 and 98 and are allowable therewith. They set forth additional features that are not disclosed in the primary reference to Landsman. Once it is determined that a person skilled in the art of exposing printing plates would have had no motivation to consider the teaching of Bergling, these features will be found to be undisclosed in any relevant prior art.

Claim 82 is patentable over Landsman in view of Bergling and Rinke et al.:

Claim 82 further requires that the carriage have a base under a support bed. The base has suction cups disposed at a level where the printing plate is in direct contact with the stationary supporting bed. The rejection suggests that it would have been obvious to further modify Landsman in view of Rinke to use vacuum to secure the printing plate to Landsman platen. However, Claim 82 does not recite using vacuum to secure the printing plate to the supporting bed or platen as taught by Rinke et al. The suction cups in the present invention are mounted on a portion of the movable carriage. The carriage transports the plate through the system. The supporting bed upon which the plate is supported remains stationary. Since supporting bed in both Landsman and Rinke et al is a movable element to which the plate to be imaged is affixed, it is apparent that neither reference teaches a movable carriage that includes suction cups disposed at a level where the printing plate is in direct contact with a stationary supporting bed.. Modifying Landsman with the vacuum system of Rinke et al would merely result in securing the printing plate to the movable platen with a vacuum.

Summary

1. The claims define apparatus that is not taught or rendered obvious by the references of record based on a proper application of 35 U.S.C. 102 or 103.
2. Appellants faced and solved unique problems that were not faced or even mentioned in any of the references of record.

3. The rejections of the claims are based on improper reading of the disclosure of the references.

Conclusion

For the above reasons, Appellants respectfully request that the Board of Patent Appeals and Interferences reverse the rejection by the Examiner and mandate the allowance of Claims 1, 47, 82-84, 87-112 stand rejected.

Respectfully submitted,

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Appendix I - Claims on Appeal

1. A flat bed plate setter system for imaging radiant energy onto a printing plate, the system comprising:

a stationary supporting bed;

drive means for engaging the printing plate in direct contact with the stationary support bed and sliding the printing plate on the support bed in a direction of movement; and

an optical head being movably mounted on a stationary bridge, adapted to move across the direction of movement of the printing plate and being provided for emitting radiant energy onto the printing plate.

2–46. (Canceled)

47. A flat bed plate setter system for imaging radiant energy onto a printing plate, the system comprising:

a stationary supporting bed;

a carriage for engaging the printing plate in direct contact with the stationary support bed and sliding the printing plate on the supporting bed in a direction of movement; and

an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate.

48-81. (Canceled)

82. The system of claim 47, wherein the carriage has a base located under a supporting bed with sliding elements and a protruding section carrying suction cups and disposing the suction cups at the level where the printing plate is in direct contact with the stationary supporting bed.

83. The system of claim 47, wherein the optical head is located in a container, and a lens, an edge detector, roller bearings, a moving part of a linear motor, an encoder and connectors are all located on a first side of at least one supporting rail, and all connecting conduits are located on a second side of the rail to balance the weight of the optical head.

84. The system of claim 83, wherein the carriage is attached to the linear motor at the center of gravity of the carriage.

85. A system for imaging radiant energy onto a printing plate, the system comprising:

(a) at least two flat bed plate setter systems comprising:

(i) a carriage for moving the printing plate in a direction of movement over stationary supporting elements, and

(ii) an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, wherein the optical head comprises emitters for emitting radiant energy onto the printing plate; and

(b) a transport assembly including a feed chain, an exit chain and at least two branch chains located between the feed chain and the exit chain, wherein each of the flat bed plate setter systems is located in one of the branch chains.

86. The system of claim 85, wherein the transport assembly further comprises at least one additional component selected from the group consisting of a loader, a stripper, a plate processor, a bender, a stocker or combinations thereof.

87. A method for imaging a printing plate with radiant energy in a flat bed plate setter, the method comprising:

(a) providing a flat bed plate setter having a stationary support area;

(b) disposing a printing plate on, and in direct contact with, the stationary support area;

(c) positioning the printing plate in a defined and centered position on the support bed;

(d) sliding the printing plate in a first direction; and

(e) moving a radiant energy emitting head in a second direction substantially perpendicular to the first direction to provide an image on the printing plate.

88. The system of claim 1, wherein the stationary support bed comprises a field of roller bearings extending the length of the plate setter.

89. The system of claim 47, wherein the carriage is configured to hold the printing plate from underneath as the carriage slides the printing plate on the stationary support bed.

90. The system of claim 47, wherein the carriage comprises:

a front sensor for detecting a printing plate ahead of the printing plate being slid by the carriage in the first direction, and

a rear sensor for detecting a printing plate behind the printing plate being slid by the carriage in the first direction.

91. The system of claim 47, wherein the carriage is substantially narrower than the width of the printing plate across the direction of movement of the printing plate.

92. The method of claim 87, further comprising attaching the positioned printing plate to a carriage which is substantially narrower than the width of the printing plate across the direction of movement of the printing plate.

93. The method of claim 87, wherein the step of moving the radiant energy emitting head comprises moving an optical head, on which the radiant energy emitting head is mounted, on a stationary bridge across the direction of movement of the printing plate.

94. A plate setter system for imaging radiant energy onto a printing plate, the system comprising:

a support bed comprising a stationary support surface sufficiently large to receive and directly support the printing plate with one face of the printing plate in sliding contact with the support surface;

a printing plate positioning means for bringing the printing plate into a defined and centered position;

drive means for sliding the printing plate over the stationary support surface in a direction of movement;

an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the printing plate, the optical head being adapted to emit radiant energy onto the printing plate; and

a plurality of bearings configured to maintain a portion of the printing plate at a predetermined distance from the optical head.

95. The system of claim 94, wherein the optical head is adapted to focus the radiant energy onto a focus plane, and the plurality of bearings are configured to maintain the portion of the printing plate in the focus plane.

96. The system of claim 95, wherein the plurality of bearings comprises a first row of bearings located under the printing plate and a second row of bearings over the printing plate.

97. The system of claim 95, wherein the plurality of bearing comprise a plurality of rows of precision bearing and corresponding plurality of rows

of pressure bearings, the rows of pressure bearings being offset from the corresponding rows of precision bearing.

98. A plate setter system for imaging radiant energy onto a printing plate, the system comprising:

a support bed having a support field defining a support plane;

a printing plate positioning means for bringing the printing plate into a defined and centered position;

a carriage movable across the support field in a direction of movement and having a holder adapted to secure the printing plate to the carriage and maintain the printing plate at the level of the support plane and in direct contact with the support bed; and

an optical head movably mounted on a stationary bridge and adapted to move across the direction of movement of the carriage, the optical head comprising emitters for emitting radiant energy onto the printing plate.

99. The plate setter system of claim 98, wherein the carriage is moveable across the support field in stepwise motion.

100. The plate setter system of claim 98, wherein the support is adapted to maintain the printing plate at a precise distance from the optical head while the carriage moves the printing plate across the support field.

101. The plate setter system of claim 98, wherein the support bed is adapted to maintain the printing plate flat in the support plane.

102. The plate setter system of claim 98, wherein the carriage is adapted to securely maintain the printing plate in a stationary position while the optical head moves and emits energy onto the printing plate.

103. The plate setter system of claim 1, wherein the carriage is moveable across the support field in stepwise motion.

104. The plate setter system of claim 1, wherein the support is adapted to maintain the printing plate at a precise distance from the optical head while the carriage moves the printing plate across the support field.

105. The plate setter system of claim 1, wherein the support bed is adapted to maintain the printing plate flat in the support plane.

106. The plate setter system of claim 1, wherein the carriage is adapted to securely maintain the printing plate in a stationary position while the optical head moves and emits energy onto the printing plate.

107. The plate setter system of claim 47, wherein the carriage is moveable across the support field in stepwise motion.

108. The plate setter system of claim 47, wherein the support is adapted to maintain the printing plate at a precise distance from the optical head while the carriage moves the printing plate across the support field.

109. The plate setter system of claim 47, wherein the support bed is adapted to maintain the printing plate flat in the support plane.

110. The plate setter system of claim 47, wherein the carriage is adapted to securely maintain the printing plate in a stationary position while the optical head moves and emits energy onto the printing plate.

111. The plate setter system of claim 1, comprising a printing plate positioning means for bringing the printing plate into a defined and centered position.

112. The system of claim 47, comprising a printing plate positioning means for bringing the printing plate into a defined and centered position.

Appendix II - Evidence

NONE

Appendix III – Related Proceedings

NONE